



IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/584,960

DATE: 07/13/2006
TIME: 09:24:03

Input Set : F:\421-99 PCT-US.ST25.txt
Output Set: N:\CRF4\07132006\J584960.raw

3 <110> APPLICANT: The University of North Carolina
 4 Threadgill, David W
 5 Lee, Daekee
 7 <120> TITLE OF INVENTION: MODULATION OF EPIDERMAL GROWTH FACTOR HETERODIMER ACTIVITY
 9 <130> FILE REFERENCE: 421/99 PCT/US
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/584,960
 C--> 11 <141> CURRENT FILING DATE: 2006-06-30
 11 <150> PRIOR APPLICATION NUMBER: US 60/545,185
 12 <151> PRIOR FILING DATE: 2004-02-17
 14 <150> PRIOR APPLICATION NUMBER: PCT/US2005/004968
 15 <151> PRIOR FILING DATE: 2005-02-17
 17 <160> NUMBER OF SEQ ID NOS: 21
 19 <170> SOFTWARE: PatentIn version 3.3
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 5616
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Homo sapiens
 27 <220> FEATURE:
 28 <221> NAME/KEY: CDS
 29 <222> LOCATION: (247)..(3879)
 31 <400> SEQUENCE: 1
 32 cccggcgca gcgcggccgc agcagcctcc gccccccgca cggtgtgagc gcccacgcg 60
 34 gccgaggccg ccggagtccc gagctagccc cggcgccgc cgccgcccag accggacgac 120
 36 aggccacctc gtcggcgatcc gcccagatcc cccctcgcc gccaacgcca caaccaccgc 180
 38 gcacggccccc ctgactccgt ccagtattga tcgggagagc cggagcgagc tcttcgggaa 240
 40 gcagcg atg cga ccc tcc ggg acg gcc ggg gca gcg ctc ctg gcg ctg 288
 41 Met Arg Pro Ser Gly Thr Ala Gly Ala Ala Leu Leu Ala Leu
 42 1 5 10
 44 ctg gct gcg ctc tgc ccg gcg agt cgg gct ctg gag gaa aag aaa gtt 336
 45 Leu Ala Ala Leu Cys Pro Ala Ser Arg Ala Leu Glu Glu Lys Lys Val
 46 15 20 25 30
 48 tgc caa ggc acg agt aac aag ctc acg cag ttg ggc act ttt gaa gat 384
 49 Cys Gln Gly Thr Ser Asn Lys Leu Thr Gln Leu Gly Thr Phe Glu Asp
 50 35 40 45
 52 cat ttt ctc agc ctc cag agg atg ttc aat aac tgt gag gtg gtc ctt 432
 53 His Phe Leu Ser Leu Gln Arg Met Phe Asn Asn Cys Glu Val Val Leu
 54 50 55 60
 56 ggg aat ttg gaa att acc tat gtg cag agg aat tat gat ctt tcc ttc 480
 57 Gly Asn Leu Glu Ile Thr Tyr Val Gln Arg Asn Tyr Asp Leu Ser Phe
 58 65 70 75
 60 tta aag acc atc cag gag gtg gct ggt tat gtc ctc att gcc ctc aac 528
 61 Leu Lys Thr Ile Gln Glu Val Ala Gly Tyr Val Leu Ile Ala Leu Asn
 62 80 85 90

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/584,960

DATE: 07/13/2006
TIME: 09:24:03

Input Set : F:\421-99 PCT-US.ST25.txt
Output Set: N:\CRF4\07132006\J584960.raw

64 aca gtg gag cga att cct ttg gaa aac ctg cag atc atc aga gga aat	576
65 Thr Val Glu Arg Ile Pro Leu Glu Asn Leu Gln Ile Ile Arg Gly Asn	
66 95 100 105 110	
68 atg tac tac gaa aat tcc tat gcc tta gca gtc tta tct aac tat gat	624
69 Met Tyr Tyr Glu Asn Ser Tyr Ala Leu Ala Val Leu Ser Asn Tyr Asp	
70 115 120 125	
72 gca aat aaa acc gga ctg aag gag ctg ccc atg aga aat tta cag gaa	672
73 Ala Asn Lys Thr Gly Leu Lys Glu Leu Pro Met Arg Asn Leu Gln Glu	
74 130 135 140	
76 atc ctg cat ggc gcc gtg cggtt acg aac aac cct gcc ctg tgc aac	720
77 Ile Leu His Gly Ala Val Arg Phe Ser Asn Asn Pro Ala Leu Cys Asn	
78 145 150 155	
80 gtg gag agc atc cag tgg cggtt gac ata gtc agc agt gac ttt ctc agc	768
81 Val Glu Ser Ile Gln Trp Arg Asp Ile Val Ser Ser Asp Phe Leu Ser	
82 160 165 170	
84 aac atg tcg atg gac ttc cag aac cac ctg ggc agc tgc caa aag tgt	816
85 Asn Met Ser Met Asp Phe Gln Asn His Leu Gly Ser Cys Gln Lys Cys	
86 175 180 185 190	
88 gat cca agc tgt ccc aat ggg agc tgc tgg ggt gca gga gag gag aac	864
89 Asp Pro Ser Cys Pro Asn Gly Ser Cys Trp Gly Ala Gly Glu Glu Asn	
90 195 200 205	
92 tgc cag aaa ctg acc aaa atc atc tgt gcc cag cag tgc tcc ggg cgc	912
93 Cys Gln Lys Leu Thr Lys Ile Ile Cys Ala Gln Gln Cys Ser Gly Arg	
94 210 215 220	
96 tgc cgt ggc aag tcc ccc agt gac tgc tgc cac aac cag tgt gct gca	960
97 Cys Arg Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala	
98 225 230 235	
100 ggc tgc aca ggc ccc cgg gag agc gac tgc ctg gtc tgc cgc aaa ttc	1008
101 Gly Cys Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe	
102 240 245 250	
104 cga gac gaa gcc acg tgc aag gac acc tgc ccc cca ctc atg ctc tac	1056
105 Arg Asp Glu Ala Thr Cys Lys Asp Thr Cys Pro Pro Leu Met Leu Tyr	
106 255 260 265 270	
108 aac ccc acc acg tac cag atg gat gtg aac ccc gag ggc aaa tac agc	1104
109 Asn Pro Thr Thr Tyr Gln Met Asp Val Asn Pro Glu Gly Lys Tyr Ser	
110 275 280 285	
112 ttt ggt gcc acc tgc gtg aag aag tgt ccc cgt aat tat gtg gtg aca	1152
113 Phe Gly Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr	
114 290 295 300	
116 gat cac ggc tcg tgc gtc cga gcc tgt ggg gcc gac agc tat gag atg	1200
117 Asp His Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser Tyr Glu Met	
118 305 310 315	
120 gag gaa gac ggc gtc cgc aag tgt aag aag tgc gaa ggg cct tgc cgc	1248
121 Glu Glu Asp Gly Val Arg Lys Cys Lys Lys Cys Glu Gly Pro Cys Arg	
122 320 325 330	
124 aaa gtg tgt aac gga ata ggt att ggt gaa ttt aaa gac tca ctc tcc	1296
125 Lys Val Cys Asn Gly Ile Gly Ile Gly Glu Phe Lys Asp Ser Leu Ser	
126 335 340 345 350	
128 ata aat gct acg aat att aaa cac ttc aaa aac tgc acc tcc atc agt	1344

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/584,960

DATE: 07/13/2006
TIME: 09:24:03

Input Set : F:\421-99 PCT-US.ST25.txt
Output Set: N:\CRF4\07132006\J584960.raw

129 Ile Asn Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr Ser Ile Ser			
130 355 360 365			
132 ggc gat ctc cac atc ctg ccg gtg gca ttt agg ggt gac tcc ttc aca			1392
133 Gly Asp Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp Ser Phe Thr			
134 370 375 380			
136 cat act cct cct ctg gat cca cag gaa ctg gat att ctg aaa acc gta			1440
137 His Thr Pro Pro Leu Asp Pro Gln Glu Leu Asp Ile Leu Lys Thr Val			
138 385 390 395			
140 aag gaa atc aca ggg ttt ttg ctg att cag gct tgg cct gaa aac agg			1488
141 Lys Glu Ile Thr Gly Phe Leu Leu Ile Gln Ala Trp Pro Glu Asn Arg			
142 400 405 410			
144 acg gac ctc cat gcc ttt gag aac cta gaa atc ata cgc ggc agg acc			1536
145 Thr Asp Leu His Ala Phe Glu Asn Leu Glu Ile Ile Arg Gly Arg Thr			
146 415 420 425 430			
148 aag caa cat ggt cag ttt tct ctt gca gtc gtc agc ctg aac ata aca			1584
149 Lys Gln His Gly Gln Phe Ser Leu Ala Val Val Ser Leu Asn Ile Thr			
150 435 440 445			
152 tcc ttg gga tta cgc tcc ctc aag gag ata agt gat gga gat gtg ata			1632
153 Ser Leu Gly Leu Arg Ser Leu Lys Glu Ile Ser Asp Gly Asp Val Ile			
154 450 455 460			
156 att tca gga aac aaa aat ttg tgc tat gca aat aca ata aac tgg aaa			1680
157 Ile Ser Gly Asn Lys Asn Leu Cys Tyr Ala Asn Thr Ile Asn Trp Lys			
158 465 470 475			
160 aaa ctg ttt ggg acc tcc ggt cag aaa acc aaa att ata agc aac aga			1728
161 Lys Leu Phe Gly Thr Ser Gly Gln Lys Thr Lys Ile Ile Ser Asn Arg			
162 480 485 490			
164 ggt gaa aac agc tgc aag gcc aca ggc cag gtc tgc cat gcc ttg tgc			1776
165 Gly Glu Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His Ala Leu Cys			
166 495 500 505 510			
168 tcc ccc gag ggc tgc tgg ggc ccg gag ccc agg gac tgc gtc tct tgc			1824
169 Ser Pro Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys Val Ser Cys			
170 515 520 525			
172 cgg aat gtc agc cga ggc agg gaa tgc gtg gac aag tgc aac ctt ctg			1872
173 Arg Asn Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys Asn Leu Leu			
174 530 535 540			
176 gag ggt gag cca agg gag ttt gtg gag aac tct gag tgc ata cag tgc			1920
177 Glu Gly Glu Pro Arg Glu Phe Val Glu Asn Ser Glu Cys Ile Gln Cys			
178 545 550 555			
180 cac cca gag tgc ctg cct cag gcc atg aac atc acc tgc aca gga cgg			1968
181 His Pro Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg			
182 560 565 570			
184 gga cca gac aac tgt atc cag tgt gcc cac tac att gac ggc ccc cac			2016
185 Gly Pro Asp Asn Cys Ile Gln Cys Ala His Tyr Ile Asp Gly Pro His			
186 575 580 585 590			
188 tgc gtc aag acc tgc ccg gca gga gtc atg gga gaa aac aac acc ctg			2064
189 Cys Val Lys Thr Cys Pro Ala Gly Val Met Gly Glu Asn Asn Thr Leu			
190 595 600 605			
192 gtc tgg aag tac gca gac gcc ggc cat gtg tgc cac ctg tgc cat cca			2112
193 Val Trp Lys Tyr Ala Asp Ala Gly His Val Cys His Leu Cys His Pro			

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/584,960

DATE: 07/13/2006
TIME: 09:24:03

Input Set : F:\421-99 PCT-US.ST25.txt
Output Set: N:\CRF4\07132006\J584960.raw

194	610	615	620	
196	aac tgc acc tac gga tgc act ggg cca ggt ctt gaa ggc tgt cca acg			2160
197	Asn Cys Thr Tyr Gly Cys Thr Gly Pro Gly Leu Glu Gly Cys Pro Thr			
198	625	630	635	
200	aat ggg cct aag atc ccg tcc atc gcc act ggg atg gtg ggg gcc ctc			2208
201	Asn Gly Pro Lys Ile Pro Ser Ile Ala Thr Gly Met Val Gly Ala Leu			
202	640	645	650	
204	ctc ttg ctg ctg gtg gcc ctg ggg atc ggc ctc ttc atg cga agg			2256
205	Leu Leu Leu Val Val Ala Leu Gly Ile Gly Leu Phe Met Arg Arg			
206	655	660	665	670
208	cgc cac atc gtt cgg aag cgc acg ctg cgg agg ctg ctg cag gag agg			2304
209	Arg His Ile Val Arg Lys Arg Thr Leu Arg Arg Leu Leu Gln Glu Arg			
210	675	680	685	
212	gag ctt gtg gag cct ctt aca ccc agt gga gaa gct ccc aac caa gct			2352
213	Glu Leu Val Glu Pro Leu Thr Pro Ser Gly Glu Ala Pro Asn Gln Ala			
214	690	695	700	
216	ctc ttg agg atc ttg aag gaa act gaa ttc aaa aag atc aaa gtg ctg			2400
217	Leu Leu Arg Ile Leu Lys Glu Thr Glu Phe Lys Lys Ile Lys Val Leu			
218	705	710	715	
220	ggc tcc ggt gcg ttc ggc acg gtg tat aag gga ctc tgg atc cca gaa			2448
221	Gly Ser Gly Ala Phe Gly Thr Val Tyr Lys Gly Leu Trp Ile Pro Glu			
222	720	725	730	
224	ggt gag aaa gtt aaa att ccc gtc gct atc aag gaa tta aga gaa gca			2496
225	Gly Glu Lys Val Lys Ile Pro Val Ala Ile Lys Glu Leu Arg Glu Ala			
226	735	740	745	750
228	aca tct ccg aaa gcc aac aag gaa atc ctc gat gaa gcc tac gtg atg			2544
229	Thr Ser Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met			
230	755	760	765	
232	gcc agc gtg gac aac ccc cac gtg tgc cgc ctg ggc atc tgc ctc			2592
233	Ala Ser Val Asp Asn Pro His Val Cys Arg Leu Leu Gly Ile Cys Leu			
234	770	775	780	
236	acc tcc acc gtg cag ctc atc acg cag ctc atg ccc ttc ggc tgc ctc			2640
237	Thr Ser Thr Val Gln Leu Ile Thr Gln Leu Met Pro Phe Gly Cys Leu			
238	785	790	795	
240	ctg gac tat gtc cgg gaa cac aaa gac aat att ggc tcc cag tac ctg			2688
241	Leu Asp Tyr Val Arg Glu His Lys Asp Asn Ile Gly Ser Gln Tyr Leu			
242	800	805	810	
244	ctc aac tgg tgt gtg cag atc gca aag ggc atg aac tac ttg gag gac			2736
245	Leu Asn Trp Cys Val Gln Ile Ala Lys Gly Met Asn Tyr Leu Glu Asp			
246	815	820	825	830
248	cgt cgc ttg gtg cac cgc gac ctg gca gcc agg aac gta ctg gtg aaa			2784
249	Arg Arg Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys			
250	835	840	845	
252	aca ccg cag cat gtc aag atc aca gat ttt ggg ctg gcc aaa ctg ctg			2832
253	Thr Pro Gln His Val Lys Ile Thr Asp Phe Gly Leu Ala Lys Leu Leu			
254	850	855	860	
256	ggt gcg gaa gag aaa gaa tac cat gca gaa gga ggc aaa gtg cct atc			2880
257	Gly Ala Glu Glu Lys Glu Tyr His Ala Glu Gly Gly Lys Val Pro Ile			
258	865	870	875	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/584,960

DATE: 07/13/2006
TIME: 09:24:03

Input Set : F:\421-99 PCT-US.ST25.txt
Output Set: N:\CRF4\07132006\J584960.raw

260	aag tgg atg gca ttg gaa tca att tta cac aga atc tat acc cac cag	2928
261	Lys Trp Met Ala Leu Glu Ser Ile Leu His Arg Ile Tyr Thr His Gln	
262	880 885 890	
264	agt gat gtc tgg agc tac ggg gtg acc gtt tgg gag ttg atg acc ttt	2976
265	Ser Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe	
266	895 900 905 910	
268	gga tcc aag cca tat gac gga atc cct gcc agc gag atc tcc tcc atc	3024
269	Gly Ser Lys Pro Tyr Asp Gly Ile Pro Ala Ser Glu Ile Ser Ser Ile	
270	915 920 925	
272	ctg gag aaa gga gaa cgc ctc cct cag cca ccc ata tgt acc atc gat	3072
273	Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp	
274	930 935 940	
276	gtc tac atg atc atg gtc aag tgc tgg atg ata gac gca gat agt cgc	3120
277	Val Tyr Met Ile Met Val Lys Cys Trp Met Ile Asp Ala Asp Ser Arg	
278	945 950 955	
280	cca aag ttc cgt gag ttg atc atc gaa ttc tcc aaa atg gcc cga gac	3168
281	Pro Lys Phe Arg Glu Leu Ile Ile Glu Phe Ser Lys Met Ala Arg Asp	
282	960 965 970	
284	ccc cag cgc tac ctt gtc att cag ggg gat gaa aga atg cat ttg cca	3216
285	Pro Gln Arg Tyr Leu Val Ile Gln Gly Asp Glu Arg Met His Leu Pro	
286	975 980 985 990	
288	agt cct aca gac tcc aac ttc tac cgt gcc ctg atg gat gaa gaa gac	3264
289	Ser Pro Thr Asp Ser Asn Phe Tyr Arg Ala Leu Met Asp Glu Glu Asp	
290	995 1000 1005	
292	atg gac gac gtg gtg gat gcc gac gag tac ctc atc cca cag cag	3309
293	Met Asp Asp Val Val Asp Ala Asp Glu Tyr Leu Ile Pro Gln Gln	
294	1010 1015 1020	
296	ggc ttc ttc agc agc ccc tcc acg tca cgg act ccc ctc ctg agc	3354
297	Gly Phe Phe Ser Ser Pro Ser Thr Ser Arg Thr Pro Leu Leu Ser	
298	1025 1030 1035	
300	tct ctg agt gca acc agc aac aat tcc acc gtg gct tgc att gat	3399
301	Ser Leu Ser Ala Thr Ser Asn Asn Ser Thr Val Ala Cys Ile Asp	
302	1040 1045 1050	
304	aga aat ggg ctg caa agc tgt ccc atc aag gaa gac agc ttc ttg	3444
305	Arg Asn Gly Leu Gln Ser Cys Pro Ile Lys Glu Asp Ser Phe Leu	
306	1055 1060 1065	
308	cag cga tac agc tca gac ccc aca ggc gcc ttg act gag gac agc	3489
309	Gln Arg Tyr Ser Ser Asp Pro Thr Gly Ala Leu Thr Glu Asp Ser	
310	1070 1075 1080	
312	ata gac gac acc ttc ctc cca gtg cct gaa tac ata aac cag tcc	3534
313	Ile Asp Asp Thr Phe Leu Pro Val Pro Glu Tyr Ile Asn Gln Ser	
314	1085 1090 1095	
316	gtt ccc aaa agg ccc gct ggc tct gtg cag aat cct gtc tat cac	3579
317	Val Pro Lys Arg Pro Ala Gly Ser Val Gln Asn Pro Val Tyr His	
318	1100 1105 1110	
320	aat cag cct ctg aac ccc gcg ccc agc aga gac cca cac tac cag	3624
321	Asn Gln Pro Leu Asn Pro Ala Pro Ser Arg Asp Pro His Tyr Gln	
322	1115 1120 1125	
324	gac ccc cac agc act gca gtg ggc aac ccc gag tat ctc aac act	3669

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/584,960

DATE: 07/13/2006

TIME: 09:24:04

Input Set : F:\421-99 PCT-US.ST25.txt
Output Set: N:\CRF4\07132006\J584960.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date